

REMARKS:

Examiner will note that a number of minor amendments have been made to the claims to improve their readability and to further clarify their intended scope. It is respectfully submitted that the amendments add no new matter and enter no new issues for consideration by examiner.

Applicant respectfully disagrees with Examiner's conclusion in relation to weight to be given to the phrase "hand held". Examiner has proposed that the preamble "does not have weight in this claim". With respect, this does not appear to be an accurate assessment of the plain meaning of these words, and Applicant respectfully disagrees in the strongest terms with Examiner's rejection of this essential component of the claimed invention as "not having weight".

Examiner's attention is drawn to MPEP 2111.02, in which the weight to give to a claim preamble is described. At the start of the second paragraph, it is stated that "Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation". It is then stated that whether structural limitations should be read into preamble language can be resolved only on review of the entirety of the application "to gain an understanding of what the inventors actually invented and intended to encompass by the claim". In the present case, the crux of the application as a whole is the provision of a hand-held digital camera that can digitally capture, manipulate and print an image, using a particular processor arrangement. That is precisely what is claimed. The "hand held digital camera" limitation is not equivalent to a "for [some purpose]" statement, but, rather, forms part of the essential character of the invention as described in the present application. As required in MPEP 2111.02, paragraph 2, this terminology limits the structure that the features of the claim must provide to be a "hand held digital camera". For these reasons, withdrawal of this particular ground of rejection is respectfully requested.

Examiner submits that Gove discloses in Figure 49 a single unit comprising all of the features of the invention. With respect, Applicant disagrees with this conclusion. ✓

The present invention is concerned with the provision of a plurality of processors around a central crossbar switch, as best shown in Figures 3 and 3(a). In the embodiment illustrated, each processor is connected to a crossbar switch that enables it to be selectively connected to another of the processors. To this end, claim 1 of the present application defines modification means that includes "a series of processing elements arranged around a central crossbar switch". Implicit in this language is the understanding that the crossbar switch functionally interconnects the processing elements, and it is submitted that any other interpretation of this claim would not make sense. Any potential ambiguity would easily be settled by briefly referring the specification.

In contrast, Gove describes a system in which a crossbar switch arrangement is used to selectively connect processors  $PP_0$  to  $PP_i$  to memory modules  $M_0$  to  $M_j$ . Nowhere in Gove is there any suggestion that the crossbar network 20 can be used to route data between processors. Rather, the system is described as enabling various combinations of processor to memory links.

Turning to the remaining claims, there are a number of other inaccuracies in the comparison of Gove to the present invention as claimed. For example, in relation to claims 2 and 6, Examiner suggests that "each processor (100-103) includes an Arithmetic Logic Unit (ALU) (2902) acting under the control of a microcode store as shown in Figure 29". Figure 29, however, is a schematic of the master processor, of which there is only one (see Figure 1, for example). It cannot therefore be said that Figure 29 of Gove discloses that each of the processing elements includes an ALU under the control of a microcode store comprising a writeable store as defined in claim 2. Accordingly, it is respectfully submitted that the objection to claims 2 and 6 on the basis of Figure 29 of Gove is not appropriate, and should therefore be withdrawn.

Turning to claims 3 and 4, Examiner refers to Figure 57 for support for the disclosure of a FIFO in each of the processing elements. However, Figure 57 relates to the transfer processor 11 (see Figure 1 of Gove), of which there is only one in the described system. As with the rejection of claims 2 and 6, this fails to disclose that each of a *plurality* of processing elements incorporates the defined features. Accordingly, it is submitted that that the rejection of claims 3 and 4 on the basis of Figure 57 of Gove is not appropriate, and should therefore be withdrawn.

Regarding claim 5, Examiner suggests that arranging the processing elements in a ring and interconnecting them would be obvious in view of Gove. With respect, there is utterly no support for such a contention, and Applicant respectfully requests that Examiner justify this conclusion with a suitable reference. The only basis Examiner has provided is that Official Notice has been taken that "doing so would save more space". With respect, this does not make sense. The processing elements in claim 5 are connected to each other via a crossbar switch as well as directly to each other in a ring. It is not clear how adding more connections than exist in claim 1 would, as the Examiner suggests, "save more space". Moreover, at best Gove discloses a series of processing elements that are selectively connectable to memory elements but not to each other via a crissbar arrangement. Applicant strongly argues that it would not be obvious for one to modify Gove by interconnecting the processing units, simply because there is no functionality in those units for communicating with each other. It is therefore respectfully submitted that Examiner is in error in concluding that claim 5 is obvious in view of Gove, and that the rejection of claim 5 should be withdrawn. ✓

Regarding claim 7, again, the Figure referred to by Examiner relates to the master processor, of which only one is provided. It cannot, therefore, be said that each of a plurality of processing elements includes the features defined in claim 7. It is submitted that claim 7 is therefore patentable over Gove. Similar comments apply in relation to claims 8 and 9. ✓

Regarding claim 10, Applicant traverses Examiner's conclusion in relation to the relevance of Figure 2. However, in view of the clear patentability of the parent claim, no additional arguments are lodged in relation to claim 10 at this stage. ✓

For the purposes of emphasising the important distinguishing feature of the present invention, new claim 11 has been added to clarify that the processing elements are functionally interconnected to each other via the crossbar switch. On the basis that this feature is implicit in claim 1 as amended in response to a previous Office Action, it is submitted that new claim 11 (and claims 12 to 20 which mirror claims 2 to 9) add no new matter and raise no new issues for Examiner to consider.

Claims 12 to 20 correspond with claims 2 to 9 and it is submitted they are novel for the same reasons.

CONCLUSION

Further consideration of the present application is respectfully requested.

Very respectfully,

Applicant:



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Marked-up copy of amendments to specification:--Ink Jet Printing

A large number of new forms of ink jet printers have been developed to facilitate alternative ink jet technologies for the image processing and data distribution system. Various combinations of ink jet devices can be included in printer devices incorporated as part of the present invention. Australian Provisional Patent Applications relating to these ink jets which are specifically incorporated by cross reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO8066	15-Jul-97	Image Creation Method and Apparatus (IJ01)	6,227,652 (July 10, 1998)
PO8072	15-Jul-97	Image Creation Method and Apparatus (IJ02)	6,213,588 (July 10, 1998)
PO8040	15-Jul-97	Image Creation Method and Apparatus (IJ03)	6,213,589 (July 10, 1998)
PO8071	15-Jul-97	Image Creation Method and Apparatus (IJ04)	6,231,163 (July 10, 1998)
PO8047	15-Jul-97	Image Creation Method and Apparatus (IJ05)	6,247,795 (July 10, 1998)
PO8035	15-Jul-97	Image Creation Method and Apparatus (IJ06)	6,394,581 (July 10, 1998)
PO8044	15-Jul-97	Image Creation Method and Apparatus (IJ07)	6,244,691 (July 10, 1998)
PO8063	15-Jul-97	Image Creation Method and Apparatus (IJ08)	6,257,704 (July 10, 1998)
PO8057	15-Jul-97	Image Creation Method and Apparatus (IJ09)	6,416,168 (July 10, 1998)
PO8056	15-Jul-97	Image Creation Method and Apparatus (IJ10)	6,220,694 (July 10, 1998)
PO8069	15-Jul-97	Image Creation Method and Apparatus (IJ11)	6,257,705 (July 10, 1998)
PO8049	15-Jul-97	Image Creation Method and Apparatus (IJ12)	6,247,794 (July 10, 1998)
PO8036	15-Jul-97	Image Creation Method and Apparatus (IJ13)	6,234,610 (July 10, 1998)
PO8048	15-Jul-97	Image Creation Method and Apparatus (IJ14)	6,247,793 (July 10, 1998)
PO8070	15-Jul-97	Image Creation Method and Apparatus (IJ15)	6,264,306 (July 10, 1998)
PO8067	15-Jul-97	Image Creation Method and Apparatus (IJ16)	6,241,342 (July 10, 1998)

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PO8001	15-Jul-97	Image Creation Method and Apparatus (IJ17)	<u>6,247,792</u> (July 10, 1998)
PO8038	15-Jul-97	Image Creation Method and Apparatus (IJ18)	<u>6,264,307</u> (July 10, 1998)
PO8033	15-Jul-97	Image Creation Method and Apparatus (IJ19)	<u>6,254,220</u> (July 10, 1998)
PO8002	15-Jul-97	Image Creation Method and Apparatus (IJ20)	<u>6,234,611</u> (July 10, 1998)
PO8068	15-Jul-97	Image Creation Method and Apparatus (IJ21)	<u>6,302,528</u> (July 10, 1998)
PO8062	15-Jul-97	Image Creation Method and Apparatus (IJ22)	<u>6,283,582</u> (July 10, 1998)
PO8034	15-Jul-97	Image Creation Method and Apparatus (IJ23)	<u>6,239,821</u> (July 10, 1998)
PO8039	15-Jul-97	Image Creation Method and Apparatus (IJ24)	<u>6,338,547</u> (July 10, 1998)
PO8041	15-Jul-97	Image Creation Method and Apparatus (IJ25)	<u>6,247,796</u> (July 10, 1998)
PO8004	15-Jul-97	Image Creation Method and Apparatus (IJ26)	<u>09/113,122</u> (July 10, 1998)
PO8037	15-Jul-97	Image Creation Method and Apparatus (IJ27)	<u>6,390,603</u> (July 10, 1998)
PO8043	15-Jul-97	Image Creation Method and Apparatus (IJ28)	<u>6,362,843</u> (July 10, 1998)
PO8042	15-Jul-97	Image Creation Method and Apparatus (IJ29)	<u>6,293,653</u> (July 10, 1998)
PO8064	15-Jul-97	Image Creation Method and Apparatus (IJ30)	<u>6,312,107</u> (July 10, 1998)
PO9389	23-Sep-97	Image Creation Method and Apparatus (IJ31)	<u>6,227,653</u> (July 10, 1998)
PO9391	23-Sep-97	Image Creation Method and Apparatus (IJ32)	<u>6,234,609</u> (July 10, 1998)
PP0888	12-Dec-97	Image Creation Method and Apparatus (IJ33)	<u>6,238,040</u> (July 10, 1998)
PP0891	12-Dec-97	Image Creation Method and Apparatus (IJ34)	<u>6,188,415</u> (July 10, 1998)
PP0890	12-Dec-97	Image Creation Method and Apparatus (IJ35)	<u>6,227,654</u> (July 10, 1998)
PP0873	12-Dec-97	Image Creation Method and Apparatus (IJ36)	<u>6,209,989</u> (July 10, 1998)
PP0993	12-Dec-97	Image Creation Method and Apparatus (IJ37)	<u>6,247,791</u> (July 10, 1998)
PP0890	12-Dec-97	Image Creation Method and Apparatus (IJ38)	<u>6,336,710</u> (July 10, 1998)
PP1398	19-Jan-98	An Image Creation Method and Apparatus (IJ39)	<u>6,217,153</u> (July 10, 1998)

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PP2592	25-Mar-98	An Image Creation Method and Apparatus (IJ40)	<u>6,416,167</u> (July 10, 1998)
PP2593	25-Mar-98	Image Creation Method and Apparatus (IJ41)	<u>6,243,113</u> (July 10, 1998)
PP3991	9-Jun-98	Image Creation Method and Apparatus (IJ42)	<u>6,283,581</u> (July 10, 1998)
PP3987	9-Jun-98	Image Creation Method and Apparatus (IJ43)	<u>6,247,790</u> (July 10, 1998)
PP3985	9-Jun-98	Image Creation Method and Apparatus (IJ44)	<u>6,260,953</u> (July 10, 1998)
PP3983	9-Jun-98	Image Creation Method and Apparatus (IJ45)	<u>6,267,469</u> (July 10, 1998)

## Ink Jet Manufacturing

Further, the present application may utilize advanced semiconductor fabrication techniques in the construction of large arrays of ink jet printers. Suitable manufacturing techniques are described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australia n Provision al Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO7935	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM01)	<u>6,224,780</u> (July 10, 1998)
PO7936	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM02)	<u>6,235,212</u> (July 10, 1998)
PO7937	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM03)	<u>6,280,643</u> (July 10, 1998)
PO8061	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM04)	<u>6,284,147</u> (July 10, 1998)
PO8054	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM05)	<u>6,214,244</u> (July 10, 1998)
PO8065	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM06)	<u>6,071,750</u> (July 10, 1998)
PO8055	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM07)	<u>6,267,905</u> (July 10, 1998)
PO8053	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM08)	<u>6,251,298</u> (July 10, 1998)
PO8078	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM09)	<u>6,258,285</u> (July 10, 1998)
PO7933	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM10)	<u>6,225,138</u> (July 10, 1998)
PO7950	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM11)	<u>6,241,904</u> (July 10, 1998)

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PO7949	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM12)	<u>6,299,786</u> (July 10, 1998)
PO8060	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM13)	<u>09/113,124</u> (July 10, 1998)
PO8059	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM14)	<u>6,231,773</u> (July 10, 1998)
PO8073	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM15)	<u>6,190,931</u> (July 10, 1998)
PO8076	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM16)	<u>6,248,249</u> (July 10, 1998)
PO8075	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM17)	<u>6,290,862</u> (July 10, 1998)
PO8079	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM18)	<u>6,241,906</u> (July 10, 1998)
PO8050	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM19)	<u>09/113,116</u> (July 10, 1998)
PO8052	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM20)	<u>6,241,905</u> (July 10, 1998)
PO7948	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM21)	<u>6,451,216</u> (July 10, 1998)
PO7951	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM22)	<u>6,231,772</u> (July 10, 1998)
PO8074	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM23)	<u>6,274,056</u> (July 10, 1998)
PO7941	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM24)	<u>6,290,861</u> (July 10, 1998)
PO8077	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM25)	<u>6,248,248</u> (July 10, 1998)
PO8058	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM26)	<u>6,306,671</u> (July 10, 1998)
PO8051	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM27)	<u>6,331,258</u> (July 10, 1998)
PO8045	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM28)	<u>6,110,754</u> (July 10, 1998)
PO7952	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM29)	<u>6,294,101</u> (July 10, 1998)
PO8046	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM30)	<u>6,416,679</u> (July 10, 1998)
PO8503	11-Aug-97	A Method of Manufacture of an Image Creation Apparatus (IJM30a)	<u>6,264,849</u> (July 10, 1998)
PO9390	23-Sep-97	A Method of Manufacture of an Image Creation Apparatus (IJM31)	<u>6,254,793</u> (July 10, 1998)
PO9392	23-Sep-97	A Method of Manufacture of an Image Creation Apparatus (IJM32)	<u>6,235,211</u> (July 10, 1998)
PP0889	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM35)	<u>6,235,211</u> (July 10, 1998)
PP0887	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM36)	<u>6,264,850</u>



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PP0882	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM37)	6,258,284 (July 10, 1998)
PP0874	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM38)	6,258,284 (July 10, 1998)
PP1396	19-Jan-98	A Method of Manufacture of an Image Creation Apparatus (IJM39)	6,228,668 (July 10, 1998)
PP2591	25-Mar-98	A Method of Manufacture of an Image Creation Apparatus (IJM41)	6,180,427 (July 10, 1998)
PP3989	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM40)	6,171,875 (July 10, 1998)
PP3990	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM42)	6,267,904 (July 10, 1998)
PP3986	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM43)	6,245,247 (July 10, 1998)
PP3984	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM44)	6,245,247 (July 10, 1998)
PP3982	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM45)	6,231,148 (July 10, 1998)

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Fluid Supply

Further, the present application may utilize an ink delivery system to the ink jet head. Delivery systems relating to the supply of ink to a series of ink jet nozzles are described in the following Australian provisional patent specifications, the disclosure of which are hereby incorporated by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO8003	15-Jul-97	Supply Method and Apparatus (F1)	6,350,023 (July 10, 1998)
PO8005	15-Jul-97	Supply Method and Apparatus (F2)	6,318,849 (July 10, 1998)
PO9404	23-Sep-97	A Device and Method (F3)	09/113,101 (July 10, 1998)

MEMS Technology

Further, the present application may utilize advanced semiconductor microelectromechanical techniques in the construction of large arrays of ink jet printers. Suitable microelectromechanical techniques are described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO7943	15-Jul-97	A device (MEMS01)	
PO8006	15-Jul-97	A device (MEMS02)	6,087,638 (July 10, 1998)
PO8007	15-Jul-97	A device (MEMS03)	09/113,093 (July 10, 1998)
PO8008	15-Jul-97	A device (MEMS04)	6,340,222 (July 10, 1998)
PO8010	15-Jul-97	A device (MEMS05)	6,041,600 (July 10, 1998)
PO8011	15-Jul-97	A device (MEMS06)	6,299,300 (July 10, 1998)
PO7947	15-Jul-97	A device (MEMS07)	6,067,797 (July 10, 1998)
PO7945	15-Jul-97	A device (MEMS08)	09/113,081 (July 10, 1998)
PO7944	15-Jul-97	A device (MEMS09)	6,266,935 (July 10, 1998)
PO7946	15-Jul-97	A device (MEMS10)	6,044,646 (July 10, 1998)
PO9393	23-Sep-97	A Device and Method (MEMS11)	09/113,065 (July 10, 1998)

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PP0875	12-Dec-97	A Device (MEMS12)	09/113,078 (July 10, 1998)
PP0894	12-Dec-97	A Device and Method (MEMS13)	09/113,075 (July 10, 1998)

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IR Technologies

Further, the present application may include the utilization of a disposable camera system such as those described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PP0895	12-Dec-97	An Image Creation Method and Apparatus (IR01)	6,231,148 (July 10, 1998)
PP0870	12-Dec-97	A Device and Method (IR02)	09/113,106 (July 10, 1998)
PP0869	12-Dec-97	A Device and Method (IR04)	6,293,658 (July 10, 1998)
PP0887	12-Dec-97	Image Creation Method and Apparatus (IR05)	09/113,104 (July 10, 1998)
PP0885	12-Dec-97	An Image Production System (IR06)	6,238,033 (July 10, 1998)
PP0884	12-Dec-97	Image Creation Method and Apparatus (IR10)	6,312,070 (July 10, 1998)
PP0886	12-Dec-97	Image Creation Method and Apparatus (IR12)	6,238,111 (July 10, 1998)
PP0871	12-Dec-97	A Device and Method (IR13)	09/113,086 (July 10, 1998)
PP0876	12-Dec-97	An Image Processing Method and Apparatus (IR14)	09/113,094 (July 10, 1998)
PP0877	12-Dec-97	A Device and Method (IR16)	6,378,970 (July 10, 1998)
PP0878	12-Dec-97	A Device and Method (IR17)	6,196,739 (July 10, 1998)
PP0879	12-Dec-97	A Device and Method (IR18)	09/112,774 (July 10, 1998)
PP0883	12-Dec-97	A Device and Method (IR19)	6,270,182 (July 10, 1998)
PP0880	12-Dec-97	A Device and Method (IR20)	6,152,619 (July 10, 1998)
PP0881	12-Dec-97	A Device and Method (IR21)	09/113,092 (July 10, 1998)

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DotCard Technologies

Further, the present application may include the utilization of a data distribution system such as that described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PP2370	16-Mar-98	Data Processing Method and Apparatus (Dot01)	09/112,781 (July 10, 1998)
PP2371	16-Mar-98	Data Processing Method and Apparatus (Dot02)	09/113,052 (July 10, 1998)

Artcam Technologies

Further, the present application may include the utilization of camera and data processing techniques such as an Artcam type device as described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO7991	15-Jul-97	Image Processing Method and Apparatus (ART01)	09/113,060 (July 10, 1998)
PO7988	15-Jul-97	Image Processing Method and Apparatus (ART02)	6,476,863 (July 10, 1998)
PO7993	15-Jul-97	Image Processing Method and Apparatus (ART03)	09/113,073 (July 10, 1998)
PO9395	23-Sep-97	Data Processing Method and Apparatus (ART04)	6,322,181 (July 10, 1998)
PO8017	15-Jul-97	Image Processing Method and Apparatus (ART06)	09/112,747 (July 10, 1998)
PO8014	15-Jul-97	Media Device (ART07)	6,227,648 (July 10, 1998)
PO8025	15-Jul-97	Image Processing Method and Apparatus (ART08)	09/112,750 (July 10, 1998)
PO8032	15-Jul-97	Image Processing Method and Apparatus (ART09)	09/112,746 (July 10, 1998)
PO7999	15-Jul-97	Image Processing Method and Apparatus (ART10)	09/112,743 (July 10, 1998)
PO7998	15-Jul-97	Image Processing Method and Apparatus (ART11)	09/112,742 (July 10, 1998)
PO8031	15-Jul-97	Image Processing Method and Apparatus (ART12)	09/112,741 (July 10, 1998)
PO8030	15-Jul-97	Media Device (ART13)	6,196,541

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PO7997	15-Jul-97	Media Device (ART15)	6,195,150 (July 10, 1998)
PO7979	15-Jul-97	Media Device (ART16)	6,362,868 (July 10, 1998)
PO8015	15-Jul-97	Media Device (ART17)	09/112,738 (July 10, 1998)
PO7978	15-Jul-97	Media Device (ART18)	09/113,067 (July 10, 1998)
PO7982	15-Jul-97	Data Processing Method and Apparatus (ART19)	6,431,669 (July 10, 1998)
PO7989	15-Jul-97	Data Processing Method and Apparatus (ART20)	6,362,869 (July 10, 1998)
PO8019	15-Jul-97	Media Processing Method and Apparatus (ART21)	6,472,052 (July 10, 1998)
PO7980	15-Jul-97	Image Processing Method and Apparatus (ART22)	6,356,715 (July 10, 1998)
PO8018	15-Jul-97	Image Processing Method and Apparatus (ART24)	09/112,777 (July 10, 1998)
PO7938	15-Jul-97	Image Processing Method and Apparatus (ART25)	09/113,224 (July 10, 1998)
PO8016	15-Jul-97	Image Processing Method and Apparatus (ART26)	6,366,693 (July 10, 1998)
PO8024	15-Jul-97	Image Processing Method and Apparatus (ART27)	6,329,990 (July 10, 1998)
PO7940	15-Jul-97	Data Processing Method and Apparatus (ART28)	09/113,072 (July 10, 1998)
PO7939	15-Jul-97	Data Processing Method and Apparatus (ART29)	09/112,785 (July 10, 1998)
PO8501	11-Aug-97	Image Processing Method and Apparatus (ART30)	6,137,500 (July 10, 1998)
PO8500	11-Aug-97	Image Processing Method and Apparatus (ART31)	09/112,796 (July 10, 1998)
PO7987	15-Jul-97	Data Processing Method and Apparatus (ART32)	09/113,071 (July 10, 1998)
PO8022	15-Jul-97	Image Processing Method and Apparatus (ART33)	6,398,328 (July 10, 1998)
PO8497	11-Aug-97	Image Processing Method and Apparatus (ART34)	09/113,090 (July 10, 1998)
PO8020	15-Jul-97	Data Processing Method and Apparatus (ART38)	6,431,704 (July 10, 1998)
PO8023	15-Jul-97	Data Processing Method and Apparatus (ART39)	09/113,222 (July 10, 1998)
PO8504	11-Aug-97	Image Processing Method and Apparatus (ART42)	09/112,786 (July 10, 1998)
PO8000	15-Jul-97	Data Processing Method and Apparatus (ART43)	6,415,054 (July 10, 1998)

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PO7977	15-Jul-97	Data Processing Method and Apparatus (ART44)	09/112,782 (July 10, 1998)
PO7934	15-Jul-97	Data Processing Method and Apparatus (ART45)	09/113,056 (July 10, 1998)
PO7990	15-Jul-97	Data Processing Method and Apparatus (ART46)	09/113,059 (July 10, 1998)
PO8499	11-Aug-97	Image Processing Method and Apparatus (ART47)	6,486,886 (July 10, 1998)
PO8502	11-Aug-97	Image Processing Method and Apparatus (ART48)	6,381,361 (July 10, 1998)
PO7981	15-Jul-97	Data Processing Method and Apparatus (ART50)	6,317,192 (July 10, 1998)
PO7986	15-Jul-97	Data Processing Method and Apparatus (ART51)	09/113,057 (July 10, 1998)
PO7983	15-Jul-97	Data Processing Method and Apparatus (ART52)	09/113,054 (July 10, 1998)
PO8026	15-Jul-97	Image Processing Method and Apparatus (ART53)	09/112,752 (July 10, 1998)
PO8027	15-Jul-97	Image Processing Method and Apparatus (ART54)	09/112,759 (July 10, 1998)
PO8028	15-Jul-97	Image Processing Method and Apparatus (ART56)	09/112,757 (July 10, 1998)
PO9394	23-Sep-97	Image Processing Method and Apparatus (ART57)	6,357,135 (July 10, 1998)
PO9396	23-Sep-97	Data Processing Method and Apparatus (ART58)	09/113,107 (July 10, 1998)
PO9397	23-Sep-97	Data Processing Method and Apparatus (ART59)	6,271,931 (July 10, 1998)
PO9398	23-Sep-97	Data Processing Method and Apparatus (ART60)	6,353,772 (July 10, 1998)
PO9399	23-Sep-97	Data Processing Method and Apparatus (ART61)	6,106,147 (July 10, 1998)
PO9400	23-Sep-97	Data Processing Method and Apparatus (ART62)	09/112,790 (July 10, 1998)
PO9401	23-Sep-97	Data Processing Method and Apparatus (ART63)	6,304,291 (July 10, 1998)
PO9402	23-Sep-97	Data Processing Method and Apparatus (ART64)	09/112,788 (July 10, 1998)
PO9403	23-Sep-97	Data Processing Method and Apparatus (ART65)	6,305,770 (July 10, 1998)
PO9405	23-Sep-97	Data Processing Method and Apparatus (ART66)	6,289,262 (July 10, 1998)
PP0959	16-Dec-97	A Data Processing Method and Apparatus (ART68)	6,315,200 (July 10, 1998)
PP1397	19-Jan-98	A Media Device (ART69)	6,217,165 (July 10, 1998)

B2  
Concl.

Clean copy of amendments to specification:--Ink Jet Printing

A large number of new forms of ink jet printers have been developed to facilitate alternative ink jet technologies for the image processing and data distribution system. Various combinations of ink jet devices can be included in printer devices incorporated as part of the present invention. Australian Provisional Patent Applications relating to these ink jets which are specifically incorporated by cross reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO8066	15-Jul-97	Image Creation Method and Apparatus (IJ01)	6,227,652 (July 10, 1998)
PO8072	15-Jul-97	Image Creation Method and Apparatus (IJ02)	6,213,588 (July 10, 1998)
PO8040	15-Jul-97	Image Creation Method and Apparatus (IJ03)	6,213,589 (July 10, 1998)
PO8071	15-Jul-97	Image Creation Method and Apparatus (IJ04)	6,231,163 (July 10, 1998)
PO8047	15-Jul-97	Image Creation Method and Apparatus (IJ05)	6,247,795 (July 10, 1998)
PO8035	15-Jul-97	Image Creation Method and Apparatus (IJ06)	6,394,581 (July 10, 1998)
PO8044	15-Jul-97	Image Creation Method and Apparatus (IJ07)	6,244,691 (July 10, 1998)
PO8063	15-Jul-97	Image Creation Method and Apparatus (IJ08)	6,257,704 (July 10, 1998)
PO8057	15-Jul-97	Image Creation Method and Apparatus (IJ09)	6,416,168 (July 10, 1998)
PO8056	15-Jul-97	Image Creation Method and Apparatus (IJ10)	6,220,694 (July 10, 1998)
PO8069	15-Jul-97	Image Creation Method and Apparatus (IJ11)	6,257,705 (July 10, 1998)
PO8049	15-Jul-97	Image Creation Method and Apparatus (IJ12)	6,247,794 (July 10, 1998)
PO8036	15-Jul-97	Image Creation Method and Apparatus (IJ13)	6,234,610 (July 10, 1998)
PO8048	15-Jul-97	Image Creation Method and Apparatus (IJ14)	6,247,793 (July 10, 1998)
PO8070	15-Jul-97	Image Creation Method and Apparatus (IJ15)	6,264,306 (July 10, 1998)
PO8067	15-Jul-97	Image Creation Method and Apparatus (IJ16)	6,241,342 (July 10, 1998)



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PO8001	15-Jul-97	Image Creation Method and Apparatus (IJ17)	6,247,792 (July 10, 1998)
PO8038	15-Jul-97	Image Creation Method and Apparatus (IJ18)	6,264,307 (July 10, 1998)
PO8033	15-Jul-97	Image Creation Method and Apparatus (IJ19)	6,254,220 (July 10, 1998)
PO8002	15-Jul-97	Image Creation Method and Apparatus (IJ20)	6,234,611 (July 10, 1998)
PO8068	15-Jul-97	Image Creation Method and Apparatus (IJ21)	6,302,528 (July 10, 1998)
PO8062	15-Jul-97	Image Creation Method and Apparatus (IJ22)	6,283,582 (July 10, 1998)
PO8034	15-Jul-97	Image Creation Method and Apparatus (IJ23)	6,239,821 (July 10, 1998)
PO8039	15-Jul-97	Image Creation Method and Apparatus (IJ24)	6,338,547 (July 10, 1998)
PO8041	15-Jul-97	Image Creation Method and Apparatus (IJ25)	6,247,796 (July 10, 1998)
PO8004	15-Jul-97	Image Creation Method and Apparatus (IJ26)	09/113,122 (July 10, 1998)
PO8037	15-Jul-97	Image Creation Method and Apparatus (IJ27)	6,390,603 (July 10, 1998)
PO8043	15-Jul-97	Image Creation Method and Apparatus (IJ28)	6,362,843 (July 10, 1998)
PO8042	15-Jul-97	Image Creation Method and Apparatus (IJ29)	6,293,653 (July 10, 1998)
PO8064	15-Jul-97	Image Creation Method and Apparatus (IJ30)	6,312,107 (July 10, 1998)
PO9389	23-Sep-97	Image Creation Method and Apparatus (IJ31)	6,227,653 (July 10, 1998)
PO9391	23-Sep-97	Image Creation Method and Apparatus (IJ32)	6,234,609 (July 10, 1998)
PP0888	12-Dec-97	Image Creation Method and Apparatus (IJ33)	6,238,040 (July 10, 1998)
PP0891	12-Dec-97	Image Creation Method and Apparatus (IJ34)	6,188,415 (July 10, 1998)
PP0890	12-Dec-97	Image Creation Method and Apparatus (IJ35)	6,227,654 (July 10, 1998)
PP0873	12-Dec-97	Image Creation Method and Apparatus (IJ36)	6,209,989 (July 10, 1998)
PP0993	12-Dec-97	Image Creation Method and Apparatus (IJ37)	6,247,791 (July 10, 1998)
PP0890	12-Dec-97	Image Creation Method and Apparatus (IJ38)	6,336,710 (July 10, 1998)
PP1398	19-Jan-98	An Image Creation Method and Apparatus (IJ39)	6,217,153 (July 10, 1998)

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PP2592	25-Mar-98	An Image Creation Method and Apparatus (IJ40)	6,416,167 (July 10, 1998)
PP2593	25-Mar-98	Image Creation Method and Apparatus (IJ41)	6,243,113 (July 10, 1998)
PP3991	9-Jun-98	Image Creation Method and Apparatus (IJ42)	6,283,581 (July 10, 1998)
PP3987	9-Jun-98	Image Creation Method and Apparatus (IJ43)	6,247,790 (July 10, 1998)
PP3985	9-Jun-98	Image Creation Method and Apparatus (IJ44)	6,260,953 (July 10, 1998)
PP3983	9-Jun-98	Image Creation Method and Apparatus (IJ45)	6,267,469 (July 10, 1998)

#### Ink Jet Manufacturizing

Further, the present application may utilize advanced semiconductor fabrication techniques in the construction of large arrays of ink jet printers. Suitable manufacturing techniques are described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO7935	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM01)	6,224,780 (July 10, 1998)
PO7936	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM02)	6,235,212 (July 10, 1998)
PO7937	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM03)	6,280,643 (July 10, 1998)
PO8061	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM04)	6,284,147 (July 10, 1998)
PO8054	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM05)	6,214,244 (July 10, 1998)
PO8065	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM06)	6,071,750 (July 10, 1998)
PO8055	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM07)	6,267,905 (July 10, 1998)
PO8053	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM08)	6,251,298 (July 10, 1998)
PO8078	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM09)	6,258,285 (July 10, 1998)
PO7933	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM10)	6,225,138 (July 10, 1998)
PO7950	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM11)	6,241,904 (July 10, 1998)

PO7949	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM12)	6,299,786 (July 10, 1998)
PO8060	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM13)	09/113,124 (July 10, 1998)
PO8059	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM14)	6,231,773 (July 10, 1998)
PO8073	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM15)	6,190,931 (July 10, 1998)
PO8076	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM16)	6,248,249 (July 10, 1998)
PO8075	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM17)	6,290,862 (July 10, 1998)
PO8079	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM18)	6,241,906 (July 10, 1998)
PO8050	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM19)	09/113,116 (July 10, 1998)
PO8052	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM20)	6,241,905 (July 10, 1998)
PO7948	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM21)	6,451,216 (July 10, 1998)
PO7951	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM22)	6,231,772 (July 10, 1998)
PO8074	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM23)	6,274,056 (July 10, 1998)
PO7941	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM24)	6,290,861 (July 10, 1998)
PO8077	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM25)	6,248,248 (July 10, 1998)
PO8058	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM26)	6,306,671 (July 10, 1998)
PO8051	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM27)	6,331,258 (July 10, 1998)
PO8045	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM28)	6,110,754 (July 10, 1998)
PO7952	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM29)	6,294,101 (July 10, 1998)
PO8046	15-Jul-97	A Method of Manufacture of an Image Creation Apparatus (IJM30)	6,416,679 (July 10, 1998)
PO8503	11-Aug-97	A Method of Manufacture of an Image Creation Apparatus (IJM30a)	6,264,849 (July 10, 1998)
PO9390	23-Sep-97	A Method of Manufacture of an Image Creation Apparatus (IJM31)	6,254,793 (July 10, 1998)
PO9392	23-Sep-97	A Method of Manufacture of an Image Creation Apparatus (IJM32)	6,235,211 (July 10, 1998)
PP0889	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM35)	6,235,211 (July 10, 1998)
PP0887	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM36)	6,264,850

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			(July 10, 1998)
PP0882	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM37)	6,258,284 (July 10, 1998)
PP0874	12-Dec-97	A Method of Manufacture of an Image Creation Apparatus (IJM38)	6,258,284 (July 10, 1998)
PP1396	19-Jan-98	A Method of Manufacture of an Image Creation Apparatus (IJM39)	6,228,668 (July 10, 1998)
PP2591	25-Mar-98	A Method of Manufacture of an Image Creation Apparatus (IJM41)	6,180,427 (July 10, 1998)
PP3989	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM40)	6,171,875 (July 10, 1998)
PP3990	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM42)	6,267,904 (July 10, 1998)
PP3986	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM43)	6,245,247 (July 10, 1998)
PP3984	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM44)	6,245,247 (July 10, 1998)
PP3982	9-Jun-98	A Method of Manufacture of an Image Creation Apparatus (IJM45)	6,231,148 (July 10, 1998)

Fluid Supply

Further, the present application may utilize an ink delivery system to the ink jet head. Delivery systems relating to the supply of ink to a series of ink jet nozzles are described in the following Australian provisional patent specifications, the disclosure of which are hereby incorporated by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO8003	15-Jul-97	Supply Method and Apparatus (F1)	6,350,023 (July 10, 1998)
PO8005	15-Jul-97	Supply Method and Apparatus (F2)	6,318,849 (July 10, 1998)
PO9404	23-Sep-97	A Device and Method (F3)	09/113,101 (July 10, 1998)

MEMS Technology

Further, the present application may utilize advanced semiconductor microelectromechanical techniques in the construction of large arrays of ink jet printers. Suitable microelectromechanical techniques are described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO7943	15-Jul-97	A device (MEMS01)	
PO8006	15-Jul-97	A device (MEMS02)	6,087,638 (July 10, 1998)
PO8007	15-Jul-97	A device (MEMS03)	09/113,093 (July 10, 1998)
PO8008	15-Jul-97	A device (MEMS04)	6,340,222 (July 10, 1998)
PO8010	15-Jul-97	A device (MEMS05)	6,041,600 (July 10, 1998)
PO8011	15-Jul-97	A device (MEMS06)	6,299,300 (July 10, 1998)
PO7947	15-Jul-97	A device (MEMS07)	6,067,797 (July 10, 1998)
PO7945	15-Jul-97	A device (MEMS08)	09/113,081 (July 10, 1998)
PO7944	15-Jul-97	A device (MEMS09)	6,286,935 (July 10, 1998)
PO7946	15-Jul-97	A device (MEMS10)	6,044,646 (July 10, 1998)
PO9393	23-Sep-97	A Device and Method (MEMS11)	09/113,065 (July 10, 1998)

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PP0875	12-Dec-97	A Device (MEMS12)	09/113,078 (July 10, 1998)
PP0894	12-Dec-97	A Device and Method (MEMS13)	09/113,075 (July 10, 1998)

IR Technologies

Further, the present application may include the utilization of a disposable camera system such as those described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PP0895	12-Dec-97	An Image Creation Method and Apparatus (IR01)	6,231,148 (July 10, 1998)
PP0870	12-Dec-97	A Device and Method (IR02)	09/113,106 (July 10, 1998)
PP0869	12-Dec-97	A Device and Method (IR04)	6,293,658 (July 10, 1998)
PP0887	12-Dec-97	Image Creation Method and Apparatus (IR05)	09/113,104 (July 10, 1998)
PP0885	12-Dec-97	An Image Production System (IR06)	6,238,033 (July 10, 1998)
PP0884	12-Dec-97	Image Creation Method and Apparatus (IR10)	6,312,070 (July 10, 1998)
PP0886	12-Dec-97	Image Creation Method and Apparatus (IR12)	6,238,111 (July 10, 1998)
PP0871	12-Dec-97	A Device and Method (IR13)	09/113,086 (July 10, 1998)
PP0876	12-Dec-97	An Image Processing Method and Apparatus (IR14)	09/113,094 (July 10, 1998)
PP0877	12-Dec-97	A Device and Method (IR16)	6,378,970 (July 10, 1998)
PP0878	12-Dec-97	A Device and Method (IR17)	6,196,739 (July 10, 1998)
PP0879	12-Dec-97	A Device and Method (IR18)	09/112,774 (July 10, 1998)
PP0883	12-Dec-97	A Device and Method (IR19)	6,270,182 (July 10, 1998)
PP0880	12-Dec-97	A Device and Method (IR20)	6,152,619 (July 10, 1998)
PP0881	12-Dec-97	A Device and Method (IR21)	09/113,092 (July 10, 1998)

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DotCard Technologies

Further, the present application may include the utilization of a data distribution system such as that described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PP2370	16-Mar-98	Data Processing Method and Apparatus (Dot01)	09/112,781 (July 10, 1998)
PP2371	16-Mar-98	Data Processing Method and Apparatus (Dot02)	09/113,052 (July 10, 1998)

Artcam Technologies

Further, the present application may include the utilization of camera and data processing techniques such as an Artcam type device as described in the following Australian provisional patent specifications incorporated here by cross-reference. The serial numbers of respective corresponding US patent applications are also provided for the sake of convenience.

Australian Provisional Number	Filing Date	Title	US Patent/Patent Application and Filing Date
PO7991	15-Jul-97	Image Processing Method and Apparatus (ART01)	09/113,060 (July 10, 1998)
PO7988	15-Jul-97	Image Processing Method and Apparatus (ART02)	6,476,863 (July 10, 1998)
PO7993	15-Jul-97	Image Processing Method and Apparatus (ART03)	09/113,073 (July 10, 1998)
PO9395	23-Sep-97	Data Processing Method and Apparatus (ART04)	6,322,181 (July 10, 1998)
PO8017	15-Jul-97	Image Processing Method and Apparatus (ART06)	09/112,747 (July 10, 1998)
PO8014	15-Jul-97	Media Device (ART07)	6,227,648 (July 10, 1998)
PO8025	15-Jul-97	Image Processing Method and Apparatus (ART08)	09/112,750 (July 10, 1998)
PO8032	15-Jul-97	Image Processing Method and Apparatus (ART09)	09/112,746 (July 10, 1998)
PO7999	15-Jul-97	Image Processing Method and Apparatus (ART10)	09/112,743 (July 10, 1998)
PO7998	15-Jul-97	Image Processing Method and Apparatus (ART11)	09/112,742 (July 10, 1998)
PO8031	15-Jul-97	Image Processing Method and Apparatus (ART12)	09/112,741 (July 10, 1998)
PO8030	15-Jul-97	Media Device (ART13)	6,196,541



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			(July 10, 1998)
PO7997	15-Jul-97	Media Device (ART15)	6,195,150
			(July 10, 1998)
PO7979	15-Jul-97	Media Device (ART16)	6,362,868
			(July 10, 1998)
PO8015	15-Jul-97	Media Device (ART17)	09/112,738
			(July 10, 1998)
PO7978	15-Jul-97	Media Device (ART18)	09/113,067
			(July 10, 1998)
PO7982	15-Jul-97	Data Processing Method and Apparatus (ART19)	6,431,669
			(July 10, 1998)
PO7989	15-Jul-97	Data Processing Method and Apparatus (ART20)	6,362,869
			(July 10, 1998)
PO8019	15-Jul-97	Media Processing Method and Apparatus (ART21)	6,472,052
			(July 10, 1998)
PO7980	15-Jul-97	Image Processing Method and Apparatus (ART22)	6,356,715
			(July 10, 1998)
PO8018	15-Jul-97	Image Processing Method and Apparatus (ART24)	09/112,777
			(July 10, 1998)
PO7938	15-Jul-97	Image Processing Method and Apparatus (ART25)	09/113,224
			(July 10, 1998)
PO8016	15-Jul-97	Image Processing Method and Apparatus (ART26)	6,366,693
			(July 10, 1998)
PO8024	15-Jul-97	Image Processing Method and Apparatus (ART27)	6,329,990
			(July 10, 1998)
PO7940	15-Jul-97	Data Processing Method and Apparatus (ART28)	09/113,072
			(July 10, 1998)
PO7939	15-Jul-97	Data Processing Method and Apparatus (ART29)	09/112,785
			(July 10, 1998)
PO8501	11-Aug-97	Image Processing Method and Apparatus (ART30)	6,137,500
			(July 10, 1998)
PO8500	11-Aug-97	Image Processing Method and Apparatus (ART31)	09/112,796
			(July 10, 1998)
PO7987	15-Jul-97	Data Processing Method and Apparatus (ART32)	09/113,071
			(July 10, 1998)
PO8022	15-Jul-97	Image Processing Method and Apparatus (ART33)	6,398,328
			(July 10, 1998)
PO8497	11-Aug-97	Image Processing Method and Apparatus (ART34)	09/113,090
			(July 10, 1998)
PO8020	15-Jul-97	Data Processing Method and Apparatus (ART38)	6,431,704
			(July 10, 1998)
PO8023	15-Jul-97	Data Processing Method and Apparatus (ART39)	09/113,222
			(July 10, 1998)
PO8504	11-Aug-97	Image Processing Method and Apparatus (ART42)	09/112,786
			(July 10, 1998)
PO8000	15-Jul-97	Data Processing Method and Apparatus (ART43)	6,415,054
			(July 10, 1998)

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PO7977	15-Jul-97	Data Processing Method and Apparatus (ART44)	09/112,782 (July 10, 1998)
PO7934	15-Jul-97	Data Processing Method and Apparatus (ART45)	09/113,056 (July 10, 1998)
PO7990	15-Jul-97	Data Processing Method and Apparatus (ART46)	09/113,059 (July 10, 1998)
PO8499	11-Aug-97	Image Processing Method and Apparatus (ART47)	6,486,886 (July 10, 1998)
PO8502	11-Aug-97	Image Processing Method and Apparatus (ART48)	6,381,361 (July 10, 1998)
PO7981	15-Jul-97	Data Processing Method and Apparatus (ART50)	6,317,192 (July 10, 1998)
PO7986	15-Jul-97	Data Processing Method and Apparatus (ART51)	09/113,057 (July 10, 1998)
PO7983	15-Jul-97	Data Processing Method and Apparatus (ART52)	09/113,054 (July 10, 1998)
PO8026	15-Jul-97	Image Processing Method and Apparatus (ART53)	09/112,752 (July 10, 1998)
PO8027	15-Jul-97	Image Processing Method and Apparatus (ART54)	09/112,759 (July 10, 1998)
PO8028	15-Jul-97	Image Processing Method and Apparatus (ART56)	09/112,757 (July 10, 1998)
PO9394	23-Sep-97	Image Processing Method and Apparatus (ART57)	6,357,135 (July 10, 1998)
PO9396	23-Sep-97	Data Processing Method and Apparatus (ART58)	09/113,107 (July 10, 1998)
PO9397	23-Sep-97	Data Processing Method and Apparatus (ART59)	6,271,931 (July 10, 1998)
PO9398	23-Sep-97	Data Processing Method and Apparatus (ART60)	6,353,772 (July 10, 1998)
PO9399	23-Sep-97	Data Processing Method and Apparatus (ART61)	6,106,147 (July 10, 1998)
PO9400	23-Sep-97	Data Processing Method and Apparatus (ART62)	09/112,790 (July 10, 1998)
PO9401	23-Sep-97	Data Processing Method and Apparatus (ART63)	6,304,291 (July 10, 1998)
PO9402	23-Sep-97	Data Processing Method and Apparatus (ART64)	09/112,788 (July 10, 1998)
PO9403	23-Sep-97	Data Processing Method and Apparatus (ART65)	6,305,770 (July 10, 1998)
PO9405	23-Sep-97	Data Processing Method and Apparatus (ART66)	6,289,262 (July 10, 1998)
PP0959	16-Dec-97	A Data Processing Method and Apparatus (ART68)	6,315,200 (July 10, 1998)
PP1397	19-Jan-98	A Media Device (ART69)	6,217,165 (July 10, 1998)

Clean copy of Claims

1. (Currently amended) A hand-held digital camera, comprising:  
an image sensing means for sensing an image;  
modification means for modifying said sensed image in accordance with  
modification instructions input into said camera from an inbuilt input means; and  
an output means for printing out said modified image;  
wherein said modification means includes a series of processing elements arranged  
around a central crossbar switch.
2. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein  
each of said processing elements includes an Arithmetic Logic Unit (ALU) acting under the  
control of a microcode store, wherein said microcode store comprises a writeable control  
store.
3. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein  
each of said processing elements includes an internal input and output FIFO for storing pixel  
data utilized by said processing elements.
4. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein  
said modification means is interconnected to a read and write FIFO for reading and writing  
pixel data of images to said modification means.
5. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein  
said processing elements are interconnected to form a ring and in which each element is  
separately connected to its nearest neighbours in addition to the crossbar switch.
6. (Currently amended) A hand-held digital camera as claimed in claim 2, wherein  
each of said ALUs includes a series of inputs interconnected via an internal crossbar switch  
to a series of core processing units within said ALU.
7. (Currently amended) A hand-held digital camera as claimed in claim 6, wherein  
each of said core processing units include at least one of a multiplier, an adder and a barrel  
shifter.

8. (Currently amended) A hand-held digital camera as claimed in claim 6, wherein each of ALUs includes a plurality of internal registers for the storage of temporary data.
9. (Currently amended) A hand-held digital camera as claimed in claim 1, wherein said processing elements are further connected to a common data bus for the transfer of pixel data to said processing elements.
10. (Currently amended) A hand-held digital camera as claimed in claim 9, wherein said data bus is interconnected to a data cache which acts as an intermediate cache between said processing elements and a memory store for storing said images.
11. (New) A hand-held digital camera, comprising:
  - an image sensing means for sensing an image;
  - modification means for modifying said sensed image in accordance with modification instructions input into said camera from an inbuilt input means; and
  - an output means for printing out said modified image;
  - wherein said modification means includes a plurality of processing elements functionally interconnected to each other via a crossbar switch.
12. (New) A hand-held digital camera as claimed in claim 11, wherein each of said processing elements includes an Arithmetic Logic Unit (ALU) acting under the control of a microcode store, wherein said microcode store comprises a writeable control store.
13. (New) A hand-held digital camera as claimed in claim 11, wherein each of said processing elements includes an internal input and output FIFO for storing pixel data utilized by said processing elements.
14. (New) A hand-held digital camera as claimed in claim 1, wherein said modification means is interconnected to a read and write FIFO for reading and writing pixel data of images to said modification means.

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15. (New) A hand-held digital camera as claimed in claim 11, wherein said processing elements are interconnected to form a ring in which each element is separately connected to its nearest neighbours in addition to the crossbar switch.
16. (New) A hand-held digital camera as claimed in claim 12, wherein each of the ALUs includes a series of inputs interconnected via an internal crossbar switch to a series of core processing units within said ALU.
17. (New) A hand-held digital camera as claimed in claim 16, wherein said core processing units include at least one of a multiplier, an adder and a barrel shifter.
18. (New) A hand-held digital camera as claimed in claim 16, wherein each of the ALUs includes a plurality of internal registers for the storage of temporary data.
19. (New) A hand-held digital camera as claimed in claim 11, wherein said processing elements are further connected to a common data bus for the transfer of pixel data to said processing elements.
20. (New) A hand-held digital camera as claimed in claim 19, wherein said data bus is interconnected to a data cache which acts as an intermediate cache between said processing elements and a memory store for storing said images.

Marked-up copy of amendments to AbstractIn the Abstract

The Abstract has been amended as follows:

A digital camera [system comprising] has a sensor[ing means] for sensing an image [;modification means], a processor for modifying the sensed image in accordance with [modification] instructions input into the camera[;] and an output [means] for outputting the modified image [;] where[in] the [modification means] processor includes a series of processing elements arranged around a central crossbar switch. The processing elements include an Arithmetic Logic Unit (ALU) acting under the control of a writeable microcode store, [wherein the microcode store comprises a writeable control store. The processing elements can include] an internal input and output FIFO for storing pixel data [utilized] to be processed by the processing elements and the [modification means] processor is interconnected to a read and write FIFO for reading and writing pixel data of images to the processor [modification means]. Each of the processing elements can be arranged in a ring and each element is also separately connected to its nearest neighbours. The ALU [accepts] receives a series of inputs interconnected via an internal crossbar switch to a series of core processing units within the ALU and includes a number of internal registers for the storage of temporary data. The core processing units can include at least one [one] of a multiplier, an adder and a barrel shifter. The processing elements are further connected to a common data bus for the transfer of a pixel data to the processing elements and the data bus is interconnected to a data cache which acts as an intermediate cache between the processing elements and a memory store for storing the images.